

A HIGH QUALITY RESONANT CIRCUIT BASED ON TUNING OF
BONDING WIRE INDUCTANCES
ABSTRACT of the DISCLOSURE

A method for tuning a high quality resonant circuit based on bonding wire inductors and tunable capacitors is disclosed which permits greater integration on standard silicon chips and greater insensitivity to manufacturing and ambient temperature variations. The L-C resonant circuit is tuned by a phase-locked loop with an L-C based VCO. Bonding wire inductors can be used in the resonant circuit in order to enhance the quality factor, and manufacturing variations of the bonding wire inductors are compensated by the tuning circuit. The L-C resonant circuit can be operated continuously with the tuning circuit turned off.